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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,179	03/25/2004	Bruce Nesbitt	0111339-028	7984

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EXAMINER

EDWARDS, LAURA ESTELLE

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/810,179

Applicant(s)

NESBITT, BRUCE

Examiner

Laura Edwards

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 27-30 and 35-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 and 31-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/1/05</u> | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

Applicant's election without traverse of Group I, claims 1-26 and 31-34 in the reply filed on 12/13/04 is acknowledged.

Drawings

The drawings are objected to under 37 CFR 1.83(a) because they fail to show part measurer 117 as described in the specification on page 10, last line. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: on page 1, Applicants need to update the history of previous applications including filing dates and patent numbers. Also, Figs. 3C, 16A, and 16B are not referred to in the BRIEF DESCRIPTION OF THE DRAWINGS

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4-7, 15, 17-19, 21 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Penn et al (US 6,169,605).

Penn et al teach a coating apparatus for applying a coating to a section of a part, said apparatus comprising support means (15) for supporting the part; means (20, 30) positioned adjacent to the support means for applying a coating to the section of the part; means (col. 6, lines 32-4; col. 9, lines 57 to col. 10, lines 1-9), positioned adjacent to the support means for measuring the section of the part; and means (90, see col. 9, lines 47 to col. 10, lines 1-9) for controlling the coating means and measuring means, said controlling means operable to cause the measuring means to measure a dimension of the section of the part being coated while causing

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the coating means to continue to apply an amount of coating to the section of the part based on said measurements and desired dimension of the section of the part.

With respect to claim 2, see platform (15) or part support.

With respect to claim 4, see conveyor (75).

With respect to claims 5 and 6, see sprayer(s) in col. 9, line 29.

With respect to claim 7, atomizers or air-supplied sprayers are used by Penn et al as evidenced by col. 12, lines 52-57.

With respect to claim 15, exhaust or vacuum means is provided in the apparatus adjacent or near the support as evidenced by col. 8, lines 65+.

With respect to claim 17, Penn et al provide a coating apparatus for applying a coating to a section of a part comprising a part support (15); a sprayer (30) positioned adjacent to the part support; a part measurer (CAD system) positioned adjacent to the part support; and a processor 90, see col. 9, lines 47 to col. 10, lines 1-9) which controls the sprayer and part measurer to measure a dimension of the section of a part supported by the part support and being coated while causing the sprayer to apply an amount of coating to the section of the part based on said measurements and desired dimension of the section of the part.

With respect to claim 18, see conveyor (75).

With respect to claim 19, the part support is controlled by processor 90 as evidenced by col. 10, lines 5-9).

With respect to claim 21, see the response above to claim 7.

With respect to claim 31, Penn et al teach a coating apparatus for applying a coating to a section of a part comprising a part support (15); a plurality of sprayers (30, see col. 9, line 29)

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positioned adjacent to the part support; a part measurer (CAD system) positioned adjacent to the part support; and a processor (90) operable with the sprayers and part measurer to measure a dimension of a section of a part supported by the part support and being coated while causing the sprayers to apply an amount of coating to the section of the part based on said measurements and desired dimension of the section of the part.

With respect to claim 32, see the response above to claim 7.

With respect to claim 34, see the response above to claim 19.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Penn et al (US 6,169,605) in view of Jones (US 5,959,731).

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The teachings of Penn et al have been mentioned above and while Penn et al recognize that the platform can be made from special plastics (see col. 7, lines 12-15), Penn et al are silent concerning the platform including a shield or protective coating thereon. However, it was known in the laser/semiconductor art, at the time the invention was made, to provide a TEFLON or protective coating shield on the surface of a stage or platform in order to minimize damage to the part or sample placed thereon as evidenced by Jones (see col. 3, lines 9-13). It would have been obvious to one of ordinary skill in the art to provide a TEFLON shield or coating as taught by Jones on the Penn et al platform in order to minimize damage of the part being processed.

Claims 8-14, 20, 22-25, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penn et al (US 6,169,605) in view of Keyence (High Speed Laser Scan Micrometer).

The teachings of Penn et al have been mentioned above and while Penn et al further recognize that laser profilers can be used (col. 6, lines 35-42) in scanning the part to be coated so as to provide data including dimension of the part (see col. 9, lines 56-65), Penn et al are silent concerning details to the laser systems. However, it was known in the art, at the time the invention was made, to provide a laser profiler or scanner system including a laser generator and receiver, the laser generator positioned on one side of a supported conveyed part and the receiver positioned on an opposite side of the supported conveyed part in order to provide dimension data of a part with sub-micron precision as evidenced by Keyence (see entire document). It would have been obvious to one of ordinary skill in the art to incorporate the laser scanner system as taught by Keyence in Penn et al apparatus in order to allow for sub-micron precision measurements of the dimensions of a given part to be coated for more precise product control.

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With respect to the details of the laser system, the apparatus as defined by the combination above includes a laser system having a laser generator and receiver mounted in a housing on both sides of a supported part wherein each housing includes a sensor head front surface protective cover removably connected to the housing via means (i.e., screws, bolts) not shown (see last page of Keyence brochure), and a filter connected to each housing to remove excess contaminants from the housing (see Keyence brochure -3rd page).

With respect to the use of a display device, Penn et al provide a microprocessor (90) used in combination with a CAD system or laser profiling system with a display monitor (see Fig. 3) for providing data on a given part to be coated as evidenced by col. 9, lines 48+ but Penn et al are silent concerning the display data being a given measurement of a section or even a dimensional tolerance or limit for the part. However, it was known in the art, at the time the invention was made, to use a laser profiling system in combination with a part production system, with special software for loading into a microprocessor thereby providing display of data ranging from laser activation, calibration, limit setup, dimension of the part, etc. as evidenced by Keyence (see page 5 of brochure). It would have been within the purview of one skilled in the art to incorporate a laser profiling system with special software as taught by Keyence in the Penn et al apparatus in order to enable the user to see a display of data ranging from laser activation, calibration, limit setup, dimension of the part, etc. on the screen of the microprocessor for product control purposes.

Conclusion

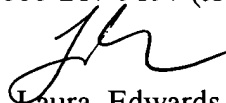
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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patent discloses the state of the art with respect to a coating system using a CAD system to scan a part and coat a discrete section of the part with a particular color(s): Harlow, Jr. et al (US 5,429,682).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura Edwards whose telephone number is (571) 272-1227. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Laura Edwards
Primary Examiner
Art Unit 1734

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March 3, 2005